

CHANGES TO THE CLAIMS

Claims 1-26 (cancelled)

27. (currently amended) A somatic embryo transformed with the vector of claim 1, a plastid transformation vector suitable for transforming a non-green plant cell, said plastid vector comprising, as operably linked components, a first flanking sequence, a DNA sequence coding for a foreign gene and a second flanking sequence, wherein said flanking sequences are from the same species as said plant cell, wherein the vector further comprises a 5' regulatory sequence functional in proplastids and chloroplasts in light and in dark.

Claims 28-31 (cancelled)

32. (currently amended) A method of achieving plastid transformation using non-green explants, wherein a plant is regenerated through somatic embryogenesis comprising the steps of:

a) creating a transplastomic plant cell by transforming a plant plastid in a plant cell with a plastid transformation vector suitable for transforming a non-green plant cell, said plastid vector comprising, as operably linked components, a first flanking sequence, a DNA sequence coding for a foreign gene, a selectable marker gene encoding a protein that confers resistance of the plant cell to a selection agent, and a second flanking sequence, wherein said flanking sequences are from the same species as said plant cell, wherein the vector further comprises a 5' regulatory sequence functional in proplastids and chloroplasts in light and in dark
vector of claim 1, said plant cell being capable of being regenerated through somatic embryogenesis, said selectable marker gene proteins providing resistance of the plant cell to a selection agent;

b) culturing the transplastomic plant cell in presence of the selection agent under conditions that allow the transplastomic cell to form a somatic embryo; and

c) growing said somatic embryo into a transplastomic plant.

Claims 33-39 (cancelled)

40 (currently amended) A method of transforming a plant plastid and regenerating a transplastomic plant by somatic embryogenesis, said method comprising:

a) creating a transplastomic plant cell by transofmrng a plant plastid in a plant cell with a plastid transformation vector suitable for transforming a non-green plant cell, said plastid vector comprising, as operably linked components, a first flanking sequence, a DNA sequence coding for a foreign gene, a selectable marker gene encoding a protein that confers resistance of the plant cell to a selection agent, and a second flanking sequence, wherein said flanking sequences are from the same species as said plant cell, wherein the vector further comprises a 5' regulatory sequence functional in proplastids and chloroplasts in light and in dark~~vector of claim 1, said plant cell being capable of being regenerated through somatic embryogenesis, said selectable marker gene proteins providing resistance of the plant cell to a selection agent;~~

b) culturing the transplastomic plant cell in presence of the selection agent under conditions that allow the transplastomic cell to form a somatic embryo; and

c) growing the somatic embryo into a transplastomic plant.

41 (cancelled)

42. (currently amended) The method of claim 40 wherein the plant is selected from a group consisting of a cereal crop, a legume, and an oil crop, a cash crop, a vegetable, a fruit, a nut, and a tree.

43. (new) The somatic embryo of claim 27, wherein said regulatory sequence comprises a promoter and said promoter is operative in proplastids and chloroplasts in light and in dark.